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1

SEQUENCE LISTING

- <110> EMALFARB, MARK A.
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VAN DEN HONDEL, CORNELIUS
- <120> HIGH-THROUGHPUT SCREENING OF EXPRESSED DNA LIBRARIES IN
FILAMENTOUS FUNGI
- <130> 3123-4006
- <140> 09/834,434
- <141> 2001-04-13
- <150> PCT/US00/10199
- <151> 2000-04-13
- <160> 6
- <170> PatentIn Ver. 2.1
- <210> 1
- <211> 1578
- <212> DNA
- <213> *Aspergillus niger*

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 <213> *Aspergillus niger*

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 20 25 30
 Gly Gln Tyr Ile Leu Gly Asp Thr Val Gly Asp Lys Ile Arg Ile Ile
 35 40 45
 Ala His Tyr Ser Gln Ser Ile Leu Val His Thr Ala Phe Gly Cys Gly
 50 55 60
 Val Leu Thr Ser Ser Thr Arg Met Ser Pro Thr Phe Leu Ser Gln Ser
 65 70 75 80
 Ile Ile Ala Ser Lys Phe Pro Arg Asn Phe Pro Leu Gln Pro Arg Val
 85 90 95
 Tyr Thr Thr Pro Ser Thr Pro Thr Gln Ser Gln Trp Leu Ser Leu Pro
 100 105 110
 Thr Arg Pro Pro Ser Trp Ser Leu Ser Ser Ala Asn Val Leu Thr Phe
 115 120 125
 Gly Thr Phe Thr Leu Lys Ser Gly Arg Arg Ala Ser Pro Leu Gln His
 130 135 140
 Arg His Tyr Arg Asn Arg Lys Thr Tyr His Cys Ile Gln Thr Pro Pro
 145 150 155 160
 Thr Ser Ser Thr Pro Ala Ser Ser Thr Pro Pro Leu Ser Ser Pro Pro
 165 170 175
 Ser Pro Pro Trp Pro Thr Pro Ser Ser Pro Ser Ser Leu Arg Thr Leu
 180 185 190
 Pro Ser Pro Ser Pro Thr Ser Cys Phe Gly Lys Thr Pro Ser Phe Pro
 195 200 205
 Asn Thr Pro Leu Pro Leu Asn Asn Pro Ile Thr Asn Lys Asn Pro Leu
 210 215 220
 Asn Ser Pro Ala Tyr Lys Gly Ile Pro Leu Ala Cys Ala Thr Leu Leu
 225 230 235 240
 Glu Leu Asn Arg Ile Asp Pro Ala Thr Trp Gly Ser Val Ser Tyr Ser
 245 250 255
 Tyr Asn Arg Lys Glu Ala Lys Asp His Gly Glu Gly Gly Asn Ile Val
 260 265 270

Gly Ala Ala Leu Lys Gly Lys Thr Val Leu Val Ile Asp Asp Val Ile
 275 280 285
 Thr Ala Gly Thr Ala Met Arg Glu Thr Leu Asn Leu Val Ala Lys Glu
 290 295 300
 Gly Gly Lys Val Val Gly Phe Thr Val Ala Leu Asp Arg Leu Glu Lys
 305 310 315 320
 Met Pro Gly Pro Lys Asp Glu Asn Gly Val Glu Asp Asp Lys Pro Arg
 325 330 335
 Met Ser Ala Met Gly Gln Ile Arg Lys Glu Tyr Gly Val Pro Thr Thr
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 Ser Ile Val Thr Leu Asp Asp Leu Ile Lys Leu Met Gln Ala Lys Gly
 355 360 365
 Asn Glu Ala Asp Met Lys Arg Leu Glu Glu Tyr Arg Ala Lys Tyr Gln
 370 375 380
 Ala Ser Asp Ser Val Ser Leu Thr Asp Cys Leu Gly Gly Cys Glu Arg
 385 390 395 400
 Leu Gly Val Val Gly Val Gly Met Lys Ser Cys Ile His Arg Gly Leu
 405 410 415
 Lys Arg Cys Val Glu Thr Val Val Arg Cys Phe Met Ser Lys Ser Thr
 420 425 430
 Asn Asp Thr Leu Lys Lys Thr Pro Trp Phe Gln Leu Asn Pro Gly Lys
 435 440 445
 Met Leu Gly Thr Pro Val Pro Thr Gln Trp Ala Pro Val Ser His Ile
 450 455 460
 Ser Gly Arg Arg Leu Phe Gly Gly Cys Gly Leu Glu Arg His Tyr Gly
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 Val Leu Arg Tyr Lys Ala Gly Ala Gly Val Arg Thr Thr Thr Pro Glu
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 <212> PRT
 <213> Aspergillus niger

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 35 40 45
 Lys Ala Tyr Trp Tyr Ile Leu His Ser Ala Ser Ala Gly Cys Leu Pro
 50 55 60
 His Pro Pro Glu Ala Gln Leu Phe Cys Leu Asn Gln Leu His Pro Asn
 65 70 75 80
 Ser Pro Ala Thr Ser Pro Ser Asn Pro Val Ser Ile Pro Leu Pro Pro
 85 90 95
 His Pro His Asn His Asn Gly Ser Pro Cys Leu Gln Asp Arg Leu Pro
 100 105 110
 Gly Val Ser Arg Arg Pro Thr Cys Leu Ser Ala Pro Ser Pro Ser Arg
 115 120 125
 Val Ala Val Arg His Pro Ser Asn Thr Gly Ile Ile Ala Ile Gly Arg
 130 135 140
 Leu Thr Thr Val Tyr Arg Leu Pro Leu Leu Leu Gln Arg Arg His Leu
 145 150 155 160
 Gln His Arg Leu Ser Pro Leu Arg Pro Leu His His Gly Pro His His
 165 170 175
 His His Leu Pro Arg Glu Pro Phe His Pro Gln Ala Arg Arg His Ala
 180 185 190
 Ser Gly Lys Lys Pro Pro Leu Ser Pro Ile Pro His Phe His Ser Thr
 195 200 205
 Thr His Lys Leu Thr Lys Thr Pro Thr Ala Pro His Thr Lys Ala Ser
 210 215 220
 Pro Ser Arg Ala Pro Pro Ser Leu Asn Ser Thr Ala Ser Thr Pro Pro
 225 230 235 240
 Pro Gly Ala Ala Cys Pro Thr Ala Thr Thr Ala Lys Lys Pro Arg Ile
 245 250 255
 Thr Ala Lys Ala Ala Thr Leu Ser Ala Pro Leu Arg Ala Arg Pro Cys
 260 265 270
 Leu Ser Thr Met Ser Ser Arg Pro Val Pro Pro Cys Val Arg Pro Ser
 275 280 285
 Thr Trp Ser Pro Arg Arg Ala Ala Arg Ser Ser Asp Ser Leu Leu Leu
 290 295 300
 Trp Thr Ala Trp Arg Arg Cys Pro Asp Pro Arg Thr Arg Thr Val Ser
 305 310 315 320
 Arg Thr Ile Ser Pro Glu Val Leu Trp Val Arg Ser Val Arg Ser Met
 325 330 335

Val Cys Pro Arg Arg Val Leu Leu Leu Trp Met Ile Ser Ser Cys Arg
 340 345 350
 Arg Arg Ala Met Arg Pro Ile Ser Gly Trp Arg Ser Ile Gly Leu Ser
 355 360 365
 Ile Arg Leu Val Ile Ser Arg Phe His Pro Ile Val Trp Val Gly Val
 370 375 380
 Arg Gly Val Arg Leu Trp Ala Glu Lys Ala Val Tyr Ile Gly Ala Arg
 385 390 395 400
 Gly Ala Arg Arg Ser Asp Val Leu Cys Gln Asn Leu Glu Gln Met Thr
 405 410 415
 Pro Lys Arg Pro Leu Gly Phe Ser Ile Ser Pro Glu Arg Cys Ser Ala
 420 425 430
 Arg His Glu Ser Ser Pro Leu Ser Gly His Pro Phe Pro Thr Phe Glu
 435 440 445
 Val Ala Asp Ala Tyr Leu Ala Glu Ala Val Ala Trp Lys Gly Thr Met
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 Lys Gly Thr Leu Arg Ser Tyr Tyr Tyr Tyr Val Pro Ser Pro Pro
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 <211> 509
 <212> PRT
 <213> *Aspergillus niger*

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 35 40 45
 Arg Thr Leu Phe Pro Lys His Thr Gly Thr Tyr Cys Ile Arg Leu Val
 50 55 60
 Arg Gly Ala Tyr Leu Ile His Pro Asn Glu Pro Asn Phe Phe Val Ser
 65 70 75 80
 Ile Asn Asn Cys Ile Gln Ile Pro Pro Gln Leu Pro Pro Pro Thr Pro
 85 90 95
 Cys Leu Tyr His Ser Leu His Thr His Thr Ile Thr Met Ala Leu Pro
 100 105 110

Ala Tyr Lys Thr Ala Phe Leu Glu Ser Leu Val Gly Gln Arg Ala Asp
 115 120 125
 Phe Arg His Leu His Pro Glu Val Gly Ser Pro Cys Val Thr Pro Pro
 130 135 140
 Thr Pro Ala Leu Ser Gln Ser Glu Asp Leu Pro Leu Tyr Thr Asp Ser
 145 150 155 160
 Pro Tyr Phe Phe Asn Ala Gly Ile Phe Asn Thr Ala Ser Leu Leu Ser
 165 170 175
 Ala Leu Ser Thr Met Ala His Thr Ile Ile Thr Phe Leu Ala Glu Asn
 180 185 190
 Pro Ser Ile Pro Lys Pro Asp Val Met Leu Arg Val Lys Asn Pro Leu
 195 200 205
 Phe Pro Gln Tyr Pro Thr Ser Thr Gln Gln Pro Ile Asn Asn Gln Lys
 210 215 220
 Pro Pro Lys Gln Pro Arg Ile Gln Arg His Pro Pro Arg Val Arg His
 225 230 235 240
 Pro Pro Thr Gln Pro His Arg Pro Arg His Leu Gly Gln Arg Val Leu
 245 250 255
 Gln Leu Gln Pro Gln Arg Ser Gln Gly Ser Arg Arg Arg Arg Gln His
 260 265 270
 Cys Arg Arg Arg Ser Glu Gly Gln Asp Arg Ala Cys Asp Arg Arg Cys
 275 280 285
 His His Gly Arg Tyr Arg His Ala Asp Pro Gln Pro Gly Arg Gln Gly
 290 295 300
 Gly Arg Gln Gly Arg Arg Ile His Cys Cys Ser Gly Pro Leu Gly Glu
 305 310 315 320
 Asp Ala Arg Thr Gln Gly Arg Glu Arg Cys Arg Gly Arg Ala Gln Asn
 325 330 335
 Glu Cys Tyr Gly Ser Asp Pro Gly Val Trp Cys Ala His Asp Glu Tyr
 340 345 350
 Cys Tyr Ser Gly Phe Asp Gln Val Asp Ala Gly Glu Gly Gln Gly Arg
 355 360 365
 Tyr Glu Ala Val Gly Gly Val Gly Val Ser Gly Leu Val Gly Phe Ile
 370 375 380
 Asp Arg Leu Phe Gly Trp Val Glu Val Arg Leu Gly Cys Gly Arg Arg
 385 390 395 400
 Asn Glu Lys Leu Tyr Thr Gly Pro Glu Glu Val Arg Arg Asp Gly Arg
 405 410 415

Glu Met Phe Tyr Val Lys Ile Leu Asn Lys His Leu Lys Lys Asp Pro
 420 425 430

Leu Val Ser Ala Glu Leu Ala Arg Lys Asp Ala Arg His Ala Met Ser
 435 440 445

Leu Ala His Ser Val Gly Thr Arg Phe Pro His Leu Lys Trp Pro Thr
 450 455 460

Leu Ile Trp Leu Arg Leu Trp Pro Gly Lys Ala Leu Trp Arg Ala Ala
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Val Gln Gly Arg Gly Trp Arg Thr Asn His Asp Ala Arg Arg Glu Leu
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<223> Description of Artificial Sequence: Synthetic
 linker peptide sequence

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<210> 6

<211> 5

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
 linker peptide sequence

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Ser Gly Glu Arg Lys
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